



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

649.5112

Job Sheet 169182



Part No: 649.5112

Job Qty: 5 ea

Part Name: RH Wiper Deflector



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/4/17

Job Tracking No:

Due Date: 1/12/18

Created By: Mario Poulin

Type: SOLD

Description:

Note: 649.5100 REV:C IPP REV:A NEW ISSUE 13-10-23 JLM VERIFIED BY:DD IPP REV:B 17.11.20 AS PER DWG REV:C DD VERF:RQ

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	5 Ea	1/10/18	1/10/18	0.00	0.00	Start Up Machining-1		18-03-26
100	Bandsaw	5 pcs	1/10/18	1/10/18	0.00	0.17	Bandsaw1		18-03-26
110	CNC Vertical Machining	5 pcs	1/12/18	1/12/18	0.00	34.97	HAAS 5 Axis		18-03-26
120	QC	5 pcs	1/12/18	1/12/18	0.00	0.00	QC2		18-03-26
130	QC	5 pcs	1/12/18	1/12/18	0.00	0.00	QC8 Machining-1		18-03-26
140	Outsource	5 pcs	1/12/18	1/12/18			ATG001-VC		18-03-26
150	Packaging	5 pcs	1/12/18	1/12/18	0.00	0.00	Packaging2		18-03-26
155	QC	5 pcs	1/12/18	1/12/18	0.00	0.00	QC5		18-03-26
180	Packaging	5 pcs	1/12/18	1/12/18	0.00	0.00	Packaging3-1		18-03-26
190	QC21-SA	5 Ea	1/12/18	1/12/18	0.00	0.00	QC21		18-03-26

Part Op 100 - Cut Blank at 7.50"

Descriptions: 110 - 1-Machine per folio Fb352 DWG REV: FOLIO REV: 2- deburr and break all sharp edges

140 - Issue P/O to ATG: P0031488 AS PER DWG 649.5100 1- Black Anodize 2- PRIME, SEE NOTE #2 Certification of Conformity is required

180 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M7075T6B4.500X05.000	7075-T6 Bar 4.5" X 5"	3.1250 ft (.625 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M7075T6B4.500X05.000	3	2	0

Part Specifications

Specifications could not be found.

Plex 2/7/18 12:34 PM dart.leroux.jason

DART
AEROSPACE

Container No: S054897



Part: 649.5112

Job No: 169182

Serial No/Batch: S054897

Revision: C

Inspector:

**1670 PETERBORO RD
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 832-5200
Email: sales@dartaero.com
www.dartaerospace.com**

Date: 03/26/18

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03525				SHEET 1 OF 2	
	DWG NO. 649.5100	REV: A	PREPARED BY A. QUAN	DATE: 05/24/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: WIPER DEFLECTORS					
APPROVED BY: ENGR. <i>[Signature]</i>		MFG. <i>[Signature]</i>		QC <i>[Signature]</i>	EFF: NEXT ORDER	
TRANSACTION CODES (C): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED PART DIMENSIONS, ADDED RADIUS				

SHEET 1, ZONE A1 IS:

NOTES

- 1 MATERIAL ALUMINUM 7075-7651 PER AMS-00-A-250/12.
- 2 FINISH: ANODIZE PER MIL STD-A-8625, TYPE III, CLASS 2, COLOR BLACK;
PRETREAT PROC-DESOTO PR-148 ADHESION PROMOTER;
PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 PART CONTROLLED BY CAD MODEL
FILE NAME: 649.5110 WIPER DEFLECTOR.SLDPRT, LAST MODIFIED 12/07/11
- 4 PART CONTROLLED BY CAD MODEL
FILE NAME: 649.5111 WIPER DEFLECTOR.SLDPRT, LAST MODIFIED 04/11/12
- 5 PART CONTROLLED BY CAD MODEL
FILE NAME: 649.5112 WIPER DEFLECTOR.SLDPRT, LAST MODIFIED 05/24/12.
- 6 DEBURR AND BREAK ALL SHARP EDGES.
- 7 IDENTIFY IAW MPP-120. LASER ETCH P/N REVISION. 12 PT CENTURY GOTHIC

IS

DOCUMENTS EFFECTED:	☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO
---------------------	--	---	--

DQA: _____ Date: _____

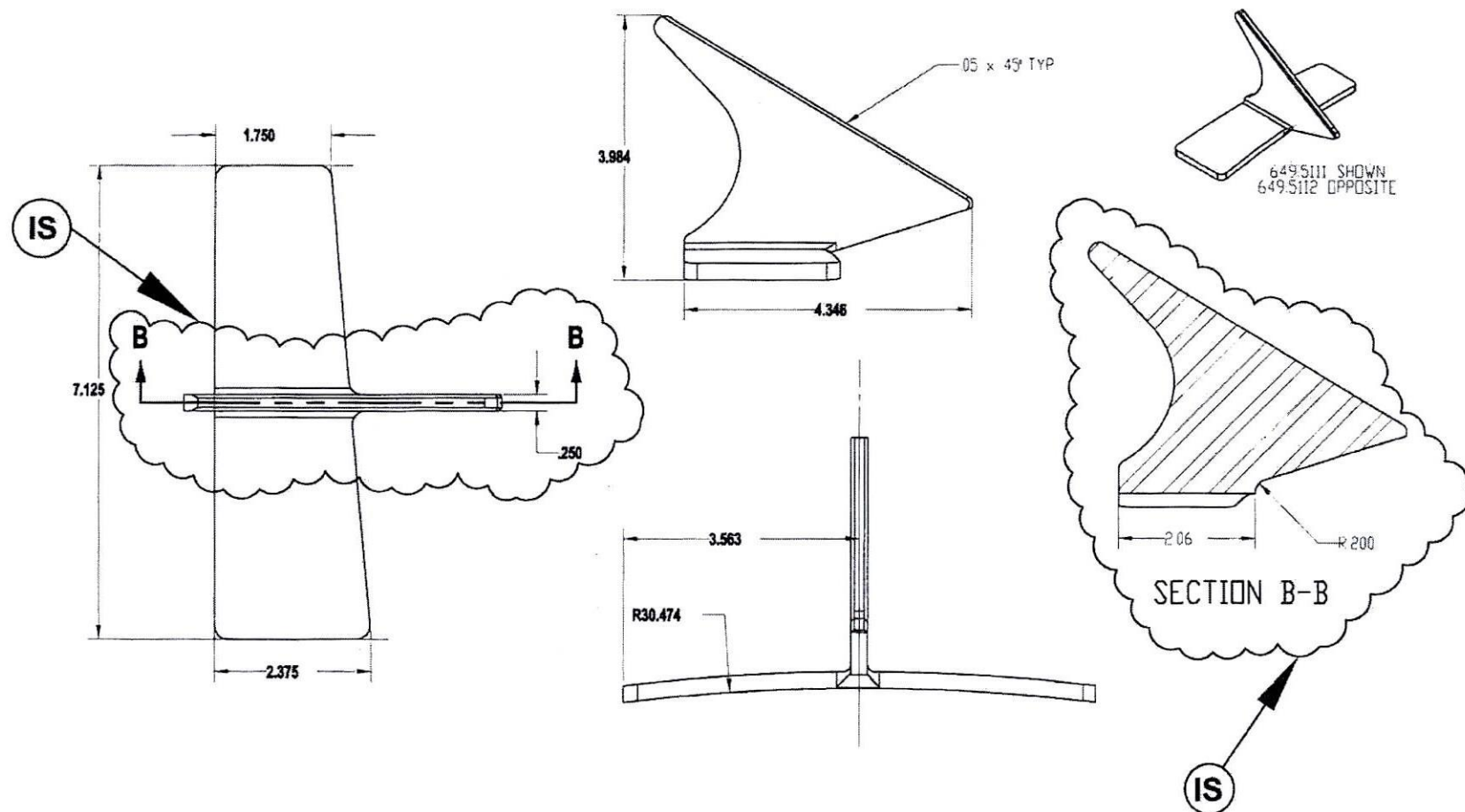


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

SHEET 2, ZONE B5 IS:

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

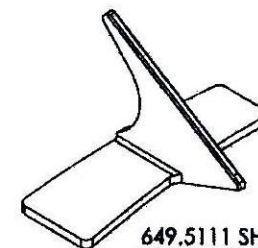
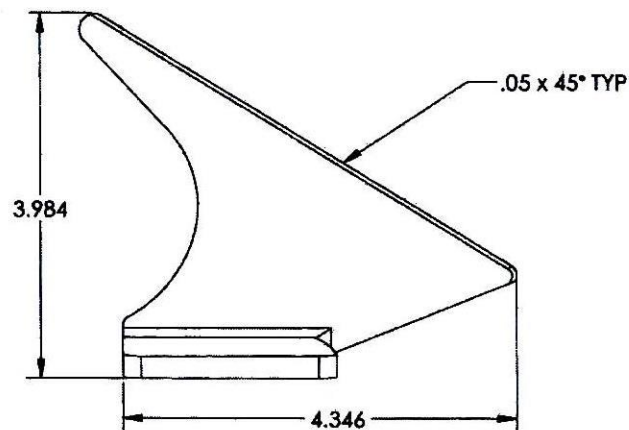
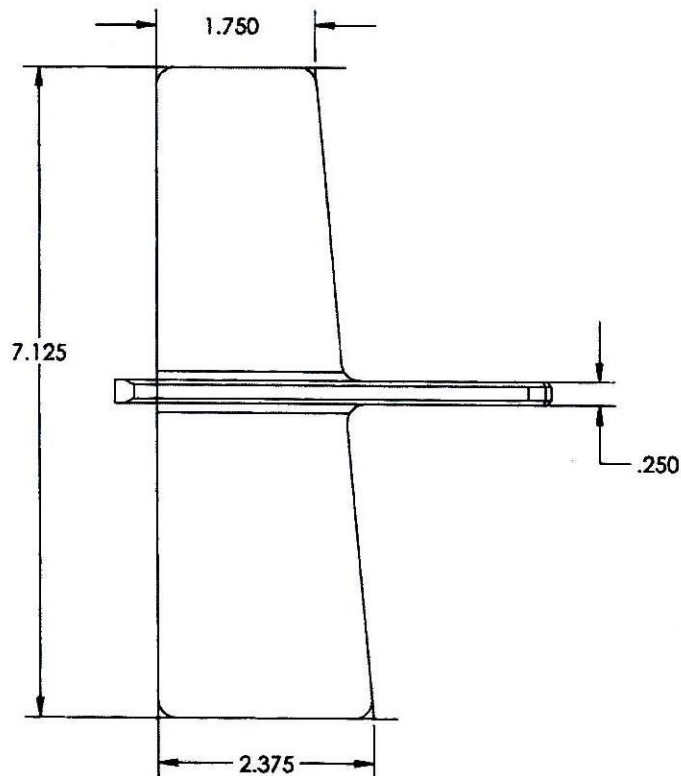
QA Closed: _____ Date: _____

Work Order update only ☐

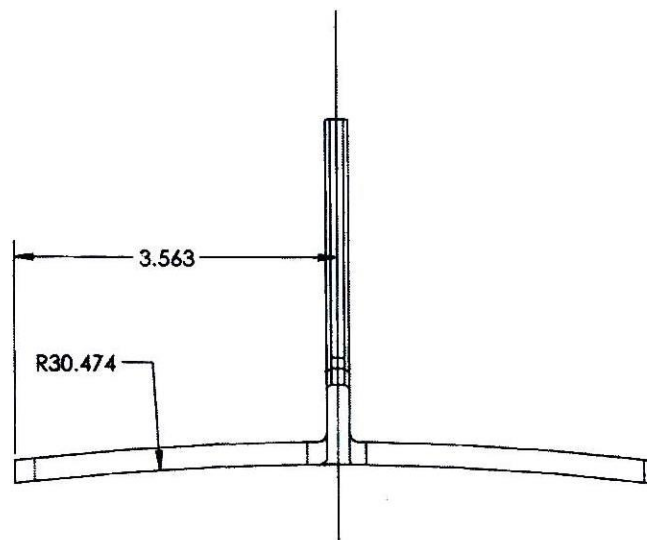
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



649.5111 SHOWN
649.5112 OPPOSITE



ORIGINAL DATE 12/27/11		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY A. GUAN	CHECKED P. BRAVO		
DRAWING APPROVAL 12/27/11			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.02 ANGLES ±.5°			
TITLE	CAGE CODE	DWG. NO.	REV.
B	07A24	649.5100	A
SCALE NONE		SHEET 2 OF 2	

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3612 (760)724-5300

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039488**

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO039488
PO Date: 4/2/18
Due Date: 4/20/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Phone:

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	170776	D5069-1	Hardpoint Adapter ISSUE P/O: _____ TO ATG ANODIZE BLACK PER MIL-A-8625F TYPE I OR IB OR IC OR II OR IIB CLASS 2	Firmed	4/11/18	8 pcs	0 pcs	8 pcs	\$11.70/pcs	\$93.60
2	171164	646.3311	RH Half - Upper Cutter Assembly Issue P/O to ATG : _____	Firmed	4/11/18	11 pcs	0 pcs	11 pcs	\$20.85/pcs	\$229.35
3	171056	646.9910	Struts Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as per Dwg 646.9900 rev. N/C	Firmed	4/11/18	20 pcs	0 pcs	20 pcs	\$16.15/pcs	\$323.00
4	169181	649.5111	LH Wiper Deflector Issue P/O to ATG : _____ AS PER DWG 649.5100 1- Black Anodize as per 2- PRIME AS PER DWG, SEE NOTE #2 Certification of Conformity is required	Firmed	4/11/18	5 pcs	0 pcs	5 pcs	\$19.05/pcs	\$95.25
5	169182	649.5112	RH Wiper Deflector Issue P/O to ATG : _____ AS PER DWG 649.5100 1- Black Anodize 2- PRIME, SEE NOTE #2 Certification of Conformity is required	Firmed	4/11/18	5 pcs	0 pcs	5 pcs	\$19.05/pcs	\$95.25
6	173879	RBE350A94-3701-00	Main Rotor Rigging Tool -Issue P/O to ATG: _____ -ANODIZE COLOR BLACK, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant As per Dwg RBE350A94-3701-00 Rev. 2A -Certificate of Conformity is required	Firmed	4/11/18	6 pcs	0 pcs	6 pcs	\$11.70/pcs	\$70.20

Grand Total: \$906.65

DAS
11
9-89



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914923

Date: 12-Apr-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Diane Baker
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
8 ea	Part: D5069-1 Hardpoint Adapter Anodize per MIL-A-8625F, Type II, Class 2, Black, .0004-.0010" (.4 - 1 mils) Job: 22812	Rev: A	PO: PO039488 Line: 1
5 ea	Part: 649.5111 LH Wiper Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22815	Rev: D	PO: PO039488 Line: 4
5 ea	Part: 649.5112 RH Wiper Deflector Job: 22816	Rev: D	PO: PO039488 Line: 5
6 ea	Part: RBE350A94-3701-00 Main Rotor Rigging Tool Anodize per MIL-A-8625F, Type II, Class 2, Black, .0004-.0010" (.4 - 1 mils), Water Sealant Job: 22817	Rev: 2A	PO: PO039488 Line: 6
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>12/04/2018</u> Certified Signature: <u>[Signature]</u> Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Made in Canada.			

